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AUTHOR Johnson, Carole M.
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ABSTRACT

The third component of a series on career education examines the issues that affect secondary programs for exceptional students and offers recommendations to assist professionals in program planning. An initial section considers the advantages and disadvantages of special education work experience, vocational education, cooperative education, skill training, and Comprehensive Employment and Training Act (CETA) of 1973 and Youth Employment and Demonstration Projects Act (YEDPA) programs. Addressed in a second section are alternatives included within the work preparation continuum: regular programs, mixed/integrated programs, separate inschool programs, separate facilities, and other unique programs. Descriptions and examples of each are offered, and factors related to placement decisions are outlined. A final section presents recommendations regarding the issues of least restrictive alternative, collaboration, personnel preparation, allocation of resources, declining enrollments, and transitional programing. Appended are a paper titled "The Language of Work Preparation:" CETA Youth Titles: student analysis, situational analysis, and support services summary forms; and a table of activities. (SBH)

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Preparing Handicapped Students for Work:

Alternatives for Secondary Programing

Carole M. Johnson

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Therefore, any education program or activity receiving federal financial assistance, or that is part of a larger entity which receives federal financial assistance, must be operated in compliance with these laws.

ADDITIONAL RESOURCES ON CAREER EDUCATION AVAILABLE FROM CEC

- Brolin, D. E. (Ed.). *Life centered career education—A competency based approach*. 1978. (No. 180)
- Brolin, D. E., McKay, D. J., & West, L. L. *Trainer's guide to life centered career education*. 1978. (No. 181)
- Davis, S. & Ward, M. *Vocational education of handicapped students—A guide for policy development*. 1978. (No. 182)
- Hoyt, K. F. *Career education—Its nature and need*. (Tape cassette, No. 62)
- Johnson, C. M. *Expanding work options for exceptional students*. 1979. (No. 194)
- Johnson, C. M., Lamkin, J. & Ward, M. *Expanding work options for exceptional students—A facilitator's kit*. 1979. (No. 193)
- Kokaska, C. J. (Ed.). *Career futures for exceptional individuals*. 1979. (No. 195)
- Lake, T. P. (Ed.). *Career education: Exemplary programs for the handicapped*. (No. 84)
- Weisgerber, R. A. (Ed.). *Vocational education: Teaching the handicapped in regular classes*. 1978. (No. 179)

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Richard Cutbirth	Training Director	Las Vegas, Nevada
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Carol Fusco	CEC Board of Governors	Columbia, South Carolina
Tracy Harris	Executive Vice President	Alexandria, Virginia
	International SCEC	
William Harris	Office of Career Education	Washington D.C.
	US Office of Education	
Chiyo Horiuchi	State Career Education Consultant	Denver, Colorado
William E. Johnson	Member CEC Executive Committee	Kansas City, Missouri
Charles Kokaska	Division on Career Development	Long Beach, California
Jerry Wing	Director of Veterans Program	Washington, D.C.
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Preface

During the past few years The Council for Exceptional Children (CEC) has been involved in a number of different projects, the success of which has been directly attributed to CEC members at the local level who are part of CEC chapters and state or provincial federations. Various CEC units in the field have proven on numerous occasions to be an innovative resource to their local communities for training, resource exchange, program development, and political action. This source of strength to a community should continue to grow at a steady pace.

Chapters or federations often identify specific areas of concern or interest in their communities. Frequently, they develop instructional or inservice programs for members on pertinent issues through speakers or site visits. CEC sponsored newsletters or other periodic communications have become a source of information to members. Recognizing this capability, CEC has developed a series of publications aimed at helping local chapter members or any other interested professionals design and implement a series of activities in their communities that will be of professional interest and assistance.

In 1978 the Office of Career Education, Department of Health, Education, and Welfare, awarded a contract to The Council for Exceptional Children to identify the needs of its members in the area of career education for exceptional students and to prepare a number of teacher focused products for their use.

Results of a 1979 survey conducted by CEC of a sample of its teacher membership, under the sponsorship of the Office of Career Education, revealed an understanding of and responsiveness to the need for career education for exceptional students. The heaviest concentration of respondents was at the elementary school level, with significantly smaller numbers at the preschool or secondary levels. Experience and/or training in the areas of learning disabilities, behavioral disorders, and all degrees of mental retardation were most frequently cited. Among statements that received 95% to 99% agreement among special educators surveyed were:

- Career education is as important for handicapped students as it is for other students.
- Schools should help students develop a realistic perception of their abilities, skills, and values in order to prepare them for career choices.
- Preparation for work is one of the several goals of education.
- Both liberal education and occupational education are important to the concept of career education.

- Students should be taught the importance of both paid and unpaid work.
- The use of community resources is essential for a comprehensive career education program.

Statements receiving 70% to 85% agreement included:

- In all grades, students should have the opportunity to explore the world of work and the skills necessary for various jobs.
- The school curriculum should teach students how to prepare for and use leisure time.
- As a vehicle for basic instruction, career education can strengthen students' achievement in reading and mathematics.

Among respondents, 74% to 90% disagreed with such statements as the following: Liberal education is incompatible with the goals of career education. Separate instruction in career education would be better than incorporating it into the existing curriculum. The present high school vocational courses teach students enough about the world of work. College preparatory students profit very little from career education. Finally, respondents expressed a strong 90% disagreement with the statement, Career education is just another fad that will soon be forgotten.

While the majority (73%) of special educators surveyed indicated a willingness to integrate career education on a regular basis into their instructional activities, 57% also stated that it was "very difficult," "difficult," or "somewhat difficult" to do so. Cited most frequently as a major problem was lack of instructional time (43%), followed by lack of available instructional materials (35%).

THE EDUCATION AND WORK SERIES

The first booklet of the series, *Making Programs Happen: A Planning Guide for CEC Members*, by Carol Fusco and Tracy Harris, sets out a number of suggested activities for CEC chapters and federations. This publication will provide the reader with an array of activities that could be undertaken by a chapter, a federation, or simply by a group of concerned professionals. Other components in the series provide extended resources for the refinement of special projects.

The second and most comprehensive component of the series is *Getting Started: Career Education Activities for Exceptional Students (K-9)*, by Jill S. Lamkin. Approximately 150 classroom activities are included for teachers of exceptional students at the elementary, middle, and junior high levels. Building from a basic

set of career education definitions and general theory, the author has laid out a clear description of specific career education concepts, objectives, and activities for students in grades K-3, 4-6 and 7-9. A brief review of materials and resources is also included.

Preparing Handicapped Students for Work: Alternatives for Secondary Programing, by Carole M. Johnson, is the third component. Educators have long been asking for materials that address the career education and work preparation of secondary school students. This monograph examines the myriad of issues that affect secondary programs for exceptional students and offers a number of recommendations to assist interested professionals in program planning.

The final component, *Techniques for Tapping Community Resources*, by Debra Green and Gerald Wing, has been designed to help educators locate and make use of the numerous resources available in any community. The authors have included specific strategies, sample letters, and lists of common community resources.

Although each component piece is part of a series,

they may be used separately. Whether used alone or together, the volumes of the series should provide teachers with resources to initiate or expand their own program.

Implementing career education for exceptional persons means allowing them to explore individually the total array of work possible and to choose from among the widest possible set of opportunities. It means emphasizing the individual's successes and refusing to emphasize failures and shortcomings. It means not limiting exceptional persons in discovering their talents. It results in the recognition of the strengths of the individual, which can lead to a meaningful, satisfying career in a work oriented society.

CEC believes that career education is essential for all teachers working with exceptional children. Specifically, it is the position of CEC that appropriate education for all exceptional children must be directed toward providing the opportunity for every student to attain the highest possible level of career development through career education experiences. Teachers are in a position to make this happen.

Mary McCaffrey
Project Director

Introduction

Preparation of handicapped students for life beyond the educational system, with all its ramifications for occupational, personal, social, recreational, civic, and family fulfillment, is of great concern today in American society. This concern is especially acute at the secondary and postsecondary levels of education. It is during this accompanying developmental period that students (both those defined as handicapped and those not so defined) often begin to demonstrate readiness for acquiring more specific work related skills, begin to make tentative career choices, begin to recognize their own shift from childhood to adulthood, feel a strong need for personal power and independence, and express concern for their future life roles.

With the passage and implementation of recent legislation affecting the fields of special education (Public Law 94-142), vocational education (Public Law 94-482), vocational rehabilitation (Public Law 93-112), and career education (Public Law 95-207), increased emphasis has been placed on preparing handicapped students for work and adult life. In each case, the focus is on assisting handicapped students to maximize individual potential for inclusion in, rather than exclusion from, our society.

In the not so distant past, secondary handicapped students were largely relegated either to separate special education programs or to regular education programs (basically without assistance or support services). Work preparation was provided primarily through special education and vocational rehabilitation or other similar agencies such as state divisions of mental health or mental retardation. Handicapped students who did not receive work preparation through special education by and large were confined to home or institutional settings, or received a general education in regular secondary programs, with the vast majority excluded from vocational education.

Today, legislative mandates as well as parent, professional, student, and community pressures are acting together to encourage exploration and expansion

of work preparation alternatives for handicapped individuals. As this exploration and expansion occurs, issues and recommendations arise and will continue to arise concerning the appropriateness and feasibility of a variety of work preparation alternatives. This monograph is intended to focus on some of these issues and concerns as they relate to secondary public school programs.

The reader should not infer that the options and alternatives presented are the only ones available, nor that participation in a given program is more or less appropriate for students with a specific disability. While many handicapped youths will need and desire work preparation that leads directly to employment or postsecondary training, others will wish to pursue careers requiring college preparation. The discussion presented here relates to those students seeking direct employment or postsecondary training. However, many of the alternatives presented may in whole or in part be meaningful and appropriate for college bound students as well.

For both comprehension and communication purposes, it is important that professionals involved in vocational education, career education, special education, and vocational rehabilitation have some basic understanding of the distinctions involved in the use of various terms in the various fields. Some of these terms are defined in Appendix A. These definitions should be considered as operational definitions in the use of this monograph.

Hopefully, this monograph will encourage you to ask questions and seek new or refined directions. Furthermore, it is hoped that the presentation of issues and questions will cause you to affirm or reaffirm a basic belief, as stated by Reynolds and Birch (1977), that "the agenda before all educators is to create a single, unified school system that serves *all* children in the most inclusive ways possible; and that is a challenging and worthy undertaking" (p. 44).

Program Options for Secondary Students

During high school and beyond, many handicapped and nonhandicapped students are ready to begin the formalized process of career preparation during which they acquire more specific skills for participation in paid and unpaid employment and daily living. Students in this developmental period are encouraged to:

- Establish tentative career plans.
- Identify and pursue the training needed to enter and advance in chosen careers.
- Identify personal reasons for career choices.
- Apply decision making skills to career and lifestyle choices.
- Demonstrate appropriate work adjustment skills, work attitudes, and work habits.
- Relate to the probability of change within work and self over time.
- Define various life roles and lifestyles as individually meaningful.
- Apply problem solving strategies to daily living and working.
- Recognize personal strengths and limitations of self and others.

These goals may now be achieved in a variety of settings and programs, including those offered under the auspices of special education and vocational education. New opportunities also exist in the federally sponsored employment and training programs under the youth components of the Comprehensive Employment and Training Act (CETA). Each of these programs assists individuals in preparing for work. However, the philosophical foundations, organizational practices, and methods of operation within these programs differ considerably. Furthermore, the degree to which handicapped individuals have had an opportunity to participate in these various work preparation alternatives also differs. For example, recent data indicate that only 2.7% of those enrolled in vocational

education are handicapped, and only 4.0% of CETA program participants are handicapped. However, the number of handicapped individuals participating in these program alternatives has been increasing in comparison with previous years.

In order to facilitate optimal functioning within the worlds of paid and unpaid employment, comprehensive work preparation alternatives must be made available to exceptional individuals. Appropriate alternatives for a given individual must be defined, modified (if necessary), and selected on the basis of individual needs and in concert with the student, his or her parents, and a variety of professionals. Identification and selection of such alternatives must not be made in isolation from the student's previous educational experiences nor suddenly become the focus of the student's educational program at age 14 or older.

Clearly, the establishment of work and daily living related skills must be developmentally nurtured. Students at all educational levels and within all education settings must be provided with career education experiences that lead to the accomplishment of that goal. Career education experiences should be integrated within regular education, special education, and vocational education curricula. Career awareness, orientation, and exploration experiences provide a developmental foundation for the general and specific work and daily living skills acquired during career preparation (see Figure 1).

If we as educators are to assist students in defining and acquiring maximum benefit from work preparation, we must understand the differences in these programs and be able to explain them clearly to both handicapped students and their parents. Following is a brief review of the major characteristics of special education work experience, vocational education, and applicable CETA programs, including the advantages and disadvantages of each. Pertinent issues and recommen-

FIGURE 1. Career Education Progression.

Phases	Program	Age level
Career awareness	infused within regular and special education programs	<i>generally</i> early elementary school years (ages 5-9) but may be needed by older students
Career orientation	infused within regular and special education programs	<i>generally</i> upper elementary school years (ages 10-12) but may be needed by older students
Career exploration	infused within regular, special, and prevocational programs	<i>generally</i> junior high/middle school years (ages 12-14) but may be needed by older students
Career preparation	infused within regular, special, vocational, and CETA programs	<i>generally</i> high school, postsecondary, and adult years (ages 14-16 and older)

dations relevant to the program alternatives presented are provided in Chapter 3.

SPECIAL EDUCATION WORK EXPERIENCE

Initially, work was perceived as therapeutic for institutionalized individuals and as economically advantageous to the residential institutions themselves. Today, work in competitive, sheltered, or home settings is recognized as personally satisfying to handicapped individuals and economically advantageous to society as a whole. This refined and broadened perception has caused dramatic changes in secondary special education programming.

Since the early 1960's, work experience programs have largely replaced earlier programs that sought to teach mentally retarded students "economic usefulness" through simplified academics or craft oriented curricula. These work experience programs have recently been emulated in the design of programs for learning disabled and emotionally disturbed youths (Alley & Deshler, 1979).

Work experience or work-study programs have proliferated for several reasons. First, research studies conducted in the 1950's, 1960's, and 1970's demonstrated that mentally retarded students receiving work-study experiences were employed more frequently and retained employment longer than those who did not receive such experiences. These studies demonstrated the efficacy of special work-study programs as opposed to other more academically oriented special education programs. However, no comparison was made between special education work-study programs and other work preparation programs. Second, other options such as vocational education were usually not available for handicapped students. Third, research findings indicated that mentally retarded and other handicapped individuals lost their jobs primarily for reasons related to inappropriate social interactions and work adjustment. These factors then became the focus of special education programs.

The majority of work experience programs are provided to handicapped students in substantially separate settings by persons trained in special education. In some states these programs are conducted in conjunction with vocational rehabilitation agencies, with students becoming clients of those agencies at age 14 to 16 (depending on the state). Typically, these programs operate in phases that are similar to the learning theory concept of successive approximation. The generally followed sequence or phases include:

- *Classroom simulation* in which students may perform a variety of craft assembly activities and begin learning general employability skills such as punctuality and applying for social security cards. Addi-

tional career exploratory experiences may be encountered by students participating in regular classes.

- *In-school work experience* during which students explore, for 1 to 3 hours per day, occupations found in the school such as library aide, maintenance assistant, cafeteria worker assistant, and grounds-keeping assistant. During this phase students also frequently participate in either substantially separate or regular industrial arts and/or home economics.
- *Vocational assessment* conducted in a school district assessment center or under subcontract with a sheltered workshop. The student is assessed on such factors as work adjustment, maintenance of work effort, manual dexterity, vocational aptitude, and interest. Reports resulting from these assessments are intended to provide information related to future work placement.
- *Half day off-campus work experience* in which students are placed on jobs for half days or less and receive academic and work adjustment training in special and/or regular classes the remainder of the day. Academics may relate to filling out job application forms, check writing, budgeting, career information, personal-social relationships, and the like. Work adjustment training often relates to on-the-job behavior, work habits and attitudes, reasons for job loss, and other general employability skills. The teacher or work-study coordinator (sometimes referred to as the work adjustment counselor) and/or the vocational rehabilitation counselor visit the student and/or employer on the job to assess the student's work adjustment.
- *Full day work experience* under the supervision of the teacher, the work-study coordinator, and/or the vocational rehabilitation counselor. This work experience may or may not be related to the job encountered by the student during the half day work experience. The student frequently must retain this job for the school year in order to complete the program.
- *Postschool job placement* may or may not be facilitated by the teacher, work-study coordinator, or rehabilitation counselor. Follow-through services are typically not provided following program completion.

Work experience programs have been both praised and assailed. As with any educational program, work experience programs have advantages and disadvantages (see Figure 2).

VOCATIONAL EDUCATION

Vocational education was, and to a large extent still is, perceived as a means for enhancing worker productivity and for meeting labor market demands within business and industry. Since the 1960's federal and state

FIGURE 2. Special Education Work Experience Programs.

Advantages	Disadvantages
1. Students are provided with exposure to work settings. 2. Work experience programs may allow students to encounter success (sometimes for the first time) in school related activities. 3. These programs are often highly motivating to students. 4. Work experience programs frequently involve cooperation among several agencies including primarily vocational rehabilitation. 5. Teachers, work-study coordinators, and rehabilitation counselors who are familiar with the student's learning needs provide support and encouragement. This support includes personal/emotional support, counseling, and advocacy for the student.	1. Because special educators have not generally had either training or experience in a given vocational area, they may not have knowledge of or access to the variety of work settings a vocational educator has (Alley & Deshler, 1979). 2. Emphasis is on general employability skills which may or may not transfer to work settings. This is a particular problem for mentally retarded students who frequently do not learn efficiently through inference and implication and who often demonstrate inefficient transfer skills (Robinson & Robinson, 1975). 3. Jobs selected for students are typically those which the work-study coordinator, teacher, or rehabilitation counselor can "get" rather than jobs directly related to individual student aspirations. A specific training plan is usually not developed. 4. Available jobs are typically those for which little training is required and may be categorized as unskilled or low level semiskilled. Jobs encountered by handicapped students are typically dead end, of low remunerative value, and may lead to future underemployment, job dissatisfaction, and/or disruptive behavior caused by boredom (Gold, 1973).

legislation have also emphasized the human factors related to vocational education. This emphasis is demonstrated through federal set-aside monies earmarked for handicapped and disadvantaged students and through the specificity of language related to sex equity in programing and recruitment in Public Law 94-482. Vocational education is provided in comprehensive high schools, area vocational centers, and postsecondary institutions by vocational educators and is operated under state supervision.

Programs in vocational education seek to prepare students for specific occupations (e.g., carpenter, secretary, motel manager, data processor, dental assistant, farmer, cook, electronics technician) or a cluster of closely related occupations (e.g., secretarial cluster, which includes receptionist, typist, general secretary, office manager). Each program is based on an analysis of local and state labor market supply and demand and is designed to enable students to perform those tasks required by workers in a given occupation. All vocational programs include two essential components:

1. *The laboratory class*, where students perform specific tasks encountered by workers in an environment as closely similar as possible to that found in the business or industry, using equipment similar to that found on the job.

2. *The related class*, where students learn the safety procedures required for safe operation of machines and equipment, as well as the concepts and theories behind the work they perform in the laboratory. New procedures are also explained and demonstrated.

Many vocational classes also offer students the opportunity to participate in a youth organization affiliated with each vocational area, such as Future Farmers of America (FFA), Distributive Education Clubs of America (DECA), or Vocational Industrial Clubs of America (VICA). Each youth organization has a local, state, and national affiliation. These organizations are considered an integral part of the vocational program. They provide students with opportunities to develop leadership and public speaking skills, perform civic activities, and use their vocational skills in creative ways.

Vocational education settings also frequently provide vocational guidance and counseling services. Vocational counselors assist students with program/career choice, recruit students for programs, assist students with personal and career related problems and provide them with career information, help students secure summer and part time employment, and assist them in obtaining postschool employment. Placement services provided by vocational counselors

FIGURE 3. Vocational Education Programs.

Advantages	Disadvantages
1. Vocational education provides training for handicapped students in occupational areas for which there is demand in the labor market, as well as assistance in securing employment upon program departure or completion. 2. It assists students in developing specific skills in a work or worklike environment designed to facilitate skill transfer to the workplace. 3. It provides relevant and motivating hands-on learning experiences. 4. It prepares students to perform tasks that are relevant to their occupational choice and that are required for successful employment, under the supervision and instruction of an individual experienced in the occupation for which the student is preparing. 5. It provides handicapped students with leadership development training through participation in regular vocational youth organizations. The emphasis here is on participation of handicapped students, regardless of program placement, in regular youth organizations rather than in separate organizations that exclude nonhandicapped students. 6. It prepares students for occupations that are challenging and remunerative and may enable many handicapped individuals to break the cycles of unemployment and underemployment they frequently experience.	1. Vocational instructors may feel uncomfortable or negative about working with handicapped students. 2. Vocational instructors may not know how to modify their programs, when necessary, to meet the needs of handicapped students. 3. Technological and industrial changes may make some specific occupations obsolete in the future. 4. General employability skills may receive insufficient emphasis. This is especially critical for youngsters who need highly structured activities through which to acquire these skills. 5. Some programs may not be sufficiently flexible in time or content to accommodate students who cannot master all the occupationally relevant tasks within traditional course or curricula timeframes.

include assistance both in program enrollment and in employment after leaving or completing the program. Vocational counselors also assist in conducting followup studies of former vocational students. These studies are intended to assist vocational staff in both formative and summative program evaluation.

Frequently, individual vocational education classes and programs are assisted by advisory committees or craft committees composed of persons knowledgeable about a given occupational area and local business and industry needs. Advisory committees also exist at the building, local district, state, and national levels. These advisory committees are composed of persons representing a wide range of businesses and industries, as well as selected segments of the population such as women and handicapped persons. Each of these committees provides advice on policy, program development, and program evaluation.

Vocational programs typically are of two types: cooperative education and skill training. In some courses these two types of programs are combined, allowing early job placement for senior level students. Regard-

less of program type, instruction involves both a laboratory class and a related class as discussed above.

Cooperative Education

In cooperative education programs students participate in related class activities taught by the vocational instructor (usually for 1 or 2 hours per day, but other time arrangements are found). Instruction typically includes large group, small group, and individualized activities. Students also participate in academic classes at the school. The laboratory aspect of a cooperative education program occurs at a work site away from the school, with frequent on-the-job supervision by the vocationally certified instructor. Each student is employed for a specified number of hours per week or month (usually 15 hours per week or 60 hours per month) in an occupation or closely related occupation to which the student has made a career commitment. Detailed individual training plans specify the skills each student is expected to learn, where these skills will be learned (on the job or in the related class), who will

supervise the instruction (teacher or employer), how instruction will be evaluated, and who will perform the evaluation. The training plan is developed through consultation among the teacher, student, parent, and employer and is signed by each. Students are paid the prevailing minimum wage for work performed on the job. Activities encountered in the related class are directly correlated with skills the student is acquiring on the job or must acquire in order to perform the job. Craft or advisory committees are involved in program and placement activities. The most widely known cooperative programs are in distributive education. However, each vocational education area has its own type of cooperative education program. Examples of other cooperative programs include cooperative agricultural education, cooperative trades and industrial education, and diversified occupations education.

Skill Training

Other vocational programs are based in the school (whether they occur in comprehensive high schools, area vocational or career centers, or post secondary institutions). Both the related class and the laboratory class usually occur on the school campus itself. Although various time arrangements are employed, students generally spend 1 hour per day in the related class and 2 hours or more in the laboratory class. Training is provided in a myriad of different occupations, which generally fall within the areas of agricultural education, technical education, business and office education, consumer and homemaking/vocational home economics, industrial arts, and health occupa-

tions. Students must make a career commitment prior to enrollment.

As with special education work experience programs, vocational education has been praised and criticized as to its appropriateness for handicapped students (see Figure 3).

CETA

The Comprehensive Employment and Training Act (CETA) of 1973 was established to further meet the education and training needs of economically disadvantaged, unemployed, and underemployed individuals. In 1977 Title II of the Act was amended by the Youth Employment and Demonstration Projects Act (YEDPA). The purpose of YEDPA is to assist primarily economically disadvantaged youths, ages 14 to 23, in overcoming barriers encountered between education and work. In the 1979 federal regulations for CETA program operations, handicapped persons were included under the definition of economically disadvantaged. The rationale for this inclusion was that handicapped individuals encounter an inordinate number of barriers to employment and training, and that disproportionate numbers of handicapped persons are unemployed or underemployed. Eligibility for participation in CETA (and YEDPA) varies with each type of program and from area to area. However, income is a major factor in determining eligibility.

YEDPA programs offer youths work experience, guidance, counseling, vocational exploration, career education, and vocational training. Funds for these programs originate from direct Department of Labor

FIGURE 4. CETA/YEDPA Programs.

Advantages	Disadvantages
1. These programs require compliance with Section 504 of the Rehabilitation Act, affirmative action plans, and "to the maximum extent feasible the elimination of architectural barriers."	1. Prime sponsors develop the criteria by which determination will be made as to whether or not a handicapped individual can benefit from CETA services.
2. They may provide incentives for handicapped and/or gifted youths to remain in school or return to school and may provide transitional supports for exceptional youths.	2. Personnel may not have sufficient training in the education or counseling of handicapped persons.
3. They provide work experience and training in areas of high immediate labor market need.	3. A balance between employability and skill training may not be achieved.
4. They include sheltered workshop employees and institutionalized individuals in the definition of unemployed.	4. Coordination with special education services (under Public Law 94-142) is not required, although some coordination with vocational rehabilitation is required and Section 504 mandates are applicable.
	5. The types of training provided may not assist handicapped students in acquiring the skills needed for employment in semiskilled, skilled, or technical occupations.

federal grants to CETA prime sponsors, which are all states and cities as well as combinations of local units with populations of 100,000 or more.

In 1977 enactment of YEDPA added new youth programs to the two youth programs previously existing within CETA of 1973. The two previously existing programs were Job Corps and Summer Youth Employment Programs. The four new youth programs offered under YEDPA are Youth Incentive Entitlement Projects, Youth Community Conservation and Improvement Projects, Youth Employment and Training Projects, and Young Adult Conservation Corps. (Appendix B contains a description of these programs.)

The YEDPA Youth Employment and Training Programs (YETP) may have the greatest relevance to in-school handicapped students. Because 22% of the funds available under YETP must be spent on in-school programs, new work preparation alternatives are emerging. These programs are to be designed cooperatively by local district personnel and the local

prime sponsor. In some districts career education coordinators and vocational educators have been involved in developing these programs. Special educators should also become involved. Advantages and disadvantages for handicapped students also exist with CETA and YEDPA (see Figure 4).

Some of the characteristics of the work preparation programs described in this section are compared in Figure 5. These comparisons are general, with some differences existing in different localities.

A variety of work preparation programs exists and more are emerging, which can assist handicapped students in acquiring the skills they need to enter and succeed in the world of work. The majority of these programs are operated under the auspices of special education, vocational education, and CETA. Assisting students and parents in selecting the most individually appropriate program and alternative within those programs is of critical importance to each handicapped student seeking such preparation.

FIGURE 5. Program Comparisons of Career Preparation.

Characteristic	Special education work experience	Vocational education		CETA youth programs
		Cooperative education	Skill training	
Type of occupational training	low level, semiskilled, and unskilled	skilled, semiskilled, technical-managerial	technical, skilled, semiskilled	skilled, semiskilled
Work outside of the school as part of the program	yes	yes	maybe, through early placement in senior year	frequently
Related class	not specifically related to job	yes, closely related to job	yes	usually, though may not be closely related to job
Counseling available	through regular school counselor or rehabilitation counselor or if specified in the IEP	usually from vocational counselors	usually from vocational counselors	yes
Teacher experienced in the occupation	no	yes	yes	maybe
Student motivation	high	high	high	high
Training or employment plan	not specifically, work preparation goals and objectives in IEP	yes	no	yes
Employability skills focus	yes	maybe	no	yes
Classroom level advisory committee	no	yes	yes	maybe
Local level advisory committee for district programs	suggested	yes	yes	yes

A Comprehensive Approach to Work Preparation

The career preparation goals identified in Chapter 1 can be achieved by handicapped students participating in special education, vocational education, and CETA programs. In addition, students may participate in these programs in a variety of school and community settings which may be more or less restrictive depending on the degree to which they meet student needs and allow interactions between handicapped and nonhandicapped students. Helping each handicapped student and his or her parents identify the work preparation alternative that is most relevant to the student's career goals and appropriate for the student's needs in the least restrictive setting is critical. Therefore, a more comprehensive perspective on how and where handicapped students acquire work and daily living skills is needed.

Students do not suddenly become ready for paid or unpaid employment or adult life, nor do they automatically learn to read and write fluently. Students can learn work and daily living skills in a variety of places through a variety of programs. Handicapped students as well as nonhandicapped students demonstrate readiness to acquire new skills at different rates and ages. Special education, vocational education, and CETA programs are thus related and compatible. Similarities in function among these programs become evident despite differences in individual program approaches and methods. As a result, a broad work preparation continuum of services can be defined at the secondary level consisting of two major areas, academic and work preparation. A student may participate in a substantially separate special education program part of the school day and a regular vocational program the remainder of the day. However, in the development of individual education programs, movement from more restrictive to less restrictive environments should be a major goal. [The work preparation continuum is derived from the literature (Alley & Deshler, 1979; Gillet, 1978; Howard, 1979; Moore & Engelman, 1977; Phelps, 1977; Tarrier, 1978) and from consultations with William Halloran, Bureau of Education for the Handicapped, and Jane Razeghi, the American Coalition for Citizens with Disabilities.] Every effort must be made to accommodate handicapped students, regardless of the severity of their handicap, in the least restrictive setting.

WORK PREPARATION CONTINUUM

Alternatives (see Figure 6) included within the work preparation continuum are regular programs, mixed/integrated programs, separate in-school programs, separate facilities, and other unique programs. A description and examples of each are offered.

Regular Programs

Students are fully integrated into a regular work preparation program. Special education and related services are provided outside of that program. Participation with nonhandicapped learners is maximal. Expectations for employment are for competitive employment in technical, skilled, or semiskilled occupations for which the learner may need some facility, equipment, or job modification. (Employment expectations are indicated for general reference and should not be interpreted otherwise.) This type of programming may occur in (a) vocational education (skill training and cooperative education), (b) experience based career education programs, (c) youth employment programs (CETA), or (d) apprenticeship or preapprenticeship programs.

Example

Project title: Vocational Education

Funding source: State and local vocational education funds

Number and age range of students served: Approximately 82 handicapped students in grades 9 through 12.

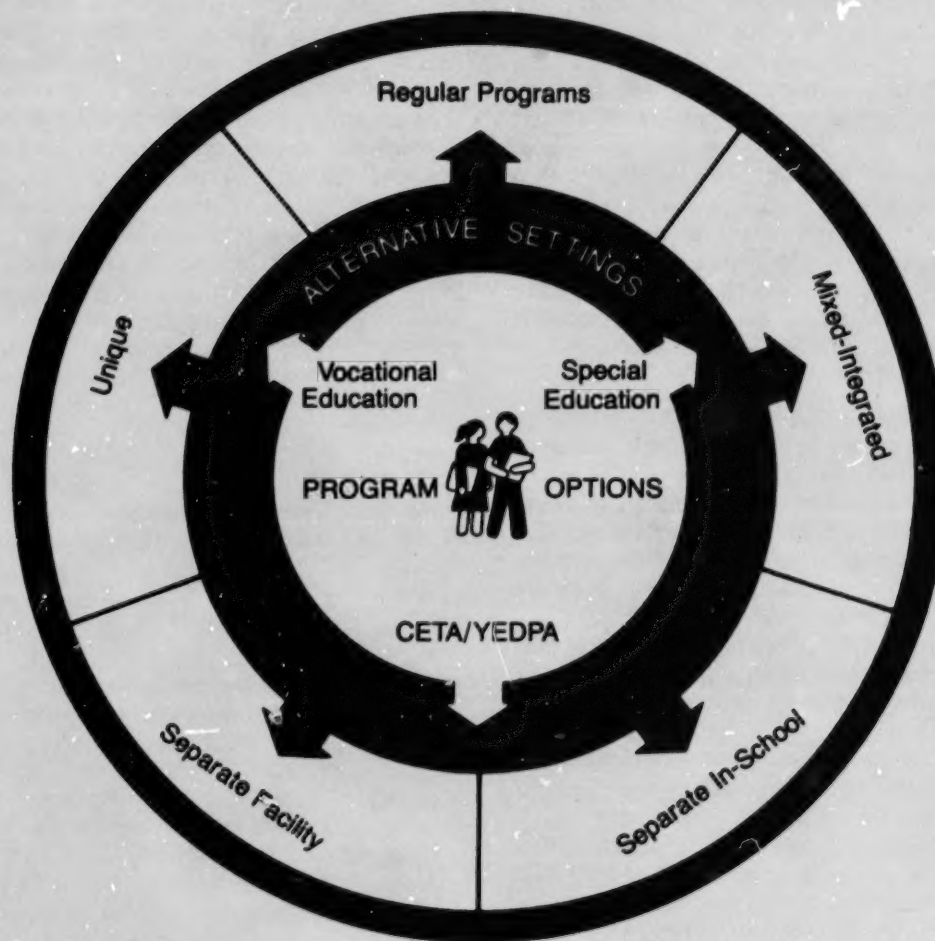
Criteria for placement decisions: Students who are able to succeed in vocational education without special education or supportive services.

Abstract of program: This is the regular vocational education program open to all students. The specific skill training areas include home economics, design, child development, agriculture, horticulture, auto mechanics, cabinet making, cosmetology, and industrial arts. This basic program has been adjusted to also meet the needs of students in a mixed/integrated setting.

Mixed/Integrated Programs

Students participate in a regular work preparation program with support services provided in that program (services may also be provided outside the program). Support services include, for example, interpreters, readers, itinerant teachers, instructional aides, specialized instructional materials, and transportation. Participation with nonhandicapped learners is maximal. Expectations for employment are for technical, skilled, or semiskilled occupations. Some facility, equipment, and/or job modification may be required. Students in these programs may also need periodic job follow-through. This type of programming may occur in (a) vocational education (skill training and cooperative education), (b) experience based career education programs, (c) youth employment programs (CETA), and (d) apprenticeship or preapprenticeship programs.

FIGURE 6. Work Preparation Continuum.



Example

Project title: Vocational Support Team

Contact person: Sandra Shmookler, Coordinator, Vocational Support Team, Damascus High School, 25921 Ridge Road, Damascus, Maryland 20750

Funding source: Federal grant through the Division of Technical Vocational Education, Maryland State Department of Education. Since September 1978 funding is through local Montgomery County Public Schools monies.

Number and age range of students served: Approximately 350 academically or economically disadvantaged vocational students in grades 9 through 12.

Criteria for placement decisions: Academically or economically disadvantaged vocational students who need support services to maintain successful achievement in their regular vocational courses.

Abstract of program: The vocational support team

helps prepare students for occupations by enabling the students to maintain successful performance in their regular vocational programs. The support services will help maintain disadvantaged students who otherwise may drop out of their vocational program and not acquire a saleable skill. The vocational support team provides extensive services to these students by working as a roving support team for all vocational programs to provide disadvantaged students with added support and reinforcement to enhance their chances for success as they pursue vocational skills. This support includes serving as liaison between students and teachers, conducting preinstruction and postinstruction, and helping students do catch-up work in regular vocational subjects. The vocational support team works with any student having a particular need by assisting in completing assignments, redemonstrating an area that was not grasped the first time around, assisting stu-

dents with specific handicaps in operating machines and equipment, and reinforcing course objectives.

Skill training areas included:

- *Home Economics*: Designed for students to plan the semester units, which gives a choice of *Foods* and *Child Development* or *Clothing* and *Foods*.
- *Crafts*: An enrichment course providing beginning exploratory experiences in a variety of individual crafts that are related to home economics.
- *Home Economics 1 and 2—Special Topics*: Students plan their own curriculum from approved areas.
- *Gourmet Foods 1 and 2*: Methods and techniques of preparing and serving gourmet meals are emphasized.
- *Independent Living*: Students learn to cook, prepare basic simple food, and prepare for self maintenance in the kitchen.
- *Creative Clothing*: Development of advanced skills as well as the creation of students' own designs.
- *Advanced Clothing*: Individualized projects using advanced sewing construction techniques and fabrics needing special handling.
- *Home Economics II*: Emphasizes wardrobe planning; relating art principles to pattern and fabric selection; constructing a more difficult garment; planning, preparing, and serving family dinners to fulfill financial, nutritional, and aesthetic requirements.
- *Housing and Interior Design*: Exploring shelter, emphasizing personal and family needs.
- *Exploring Childhood*: Surveys growth and development from prenatal stage to age 5, emphasizing guidance and parenting techniques.
- *Child Development Laboratory and Introduction to the Child Development Laboratory*: Involves direct participation in a nursery school setting with focus on 3 and 4 year old children.
- *Social and Emotional Development*: Students work with 3 and 4 year old children. Emphasis is placed on guidance techniques that provide emotional support as children learn to live with others.
- *Personal and Family Living A and B*: Composed of two units each semester: Understanding Human Behavior and Relating to Others in semester A and Life Styles and Family Living in semester B.
- *Agriculture 1, 2, and 3*: Students are taught breeds, selection, management, and care of all major farm animals and common pets. The school farm as well as the farms of local residents are used as laboratories. Students are taught the basics of carpentry, welding, tool fitting, cold metal, plumbing, electricity, and power mechanics.
- *Horticulture 1 and 2*: The student gains an insight into the wide fields of agriculture and horticulture.
- *Auto Mechanics*: Designed to prepare students with

a basic knowledge in auto maintenance and repair, or a related field.

- *Cabinetmaking 1, 2, and 3*: Designed to give students experience in working with tools, machines, and materials used in the cabinetmaking trade. They become familiar with the properties of wood and allied materials, with equipment, and with the principles underlying wood fabrication.
- *Cosmetology 1, 2, and 3*: The course curriculum is established by the State Board of Cosmetology. A minimum of 1,500 class hours of classroom instruction and training are required for a student to be eligible to take the State Board examination for an operator's license.
- *Industrial Arts*: Emphasis is placed on planning; problem solving; and developing skills in using tools, machines, materials, and processes that are common to industry.
- *Mechanical Drawing 1 and 2*: Students are given the opportunity to investigate some of the problems related to the language of drawing.
- *Woodworking 1, 2, and 3*: Woodworking deals with the ways of processing and utilizing wood for construction and building materials.
- *Cooperative Work Experience Training*: Classroom instruction is related to the trade or occupational fields selected by the students as career objectives. The instruction is supplemented by 450 hours of related on-the-job training.
- *Work Oriented Curriculum*: The Work Oriented Curriculum program involves 3 hours of classroom instruction which includes English, social studies, mathematics, and science. In addition, each student earns up to three credits for working in the afternoons at a selected training station. The classroom situation is self contained, and all work is related to on-the-job training.

On-The-Job Training—CWE: 1 year, 1-3 credits.

Separate In-School Program

Students participate in a work preparation program designed for individuals who cannot be accommodated in the previous, less restrictive settings. The program is housed in a regular school environment. Students may spend part of the school day in regular or special academic programs. Participation with nonhandicapped students is reduced. Employment expectations are for semiskilled and unskilled occupations with the need for job, facility, and/or equipment modification likely. These students may need occasional job follow-through.

This type of programing may include:

- Vocational education including (a) individual vocational training (designed to fit the student's individual

interests or where student or labor market demand is not sufficient to warrant a vocational program within the geographic area); (b) prevocational evaluation services (a diagnostic rather than instructional service for students whose needs preclude use of regular assessment services); and (c) temporary vocational education (designed to provide intensive training in a specific set of occupationally related tasks prior to or concurrent with work experience or enrollment in a vocational program).

- Special education/vocational rehabilitation work-study programs.
- Experience based career education programs emanating from within special education.
- Specialized youth employment programs (CETA/YEDPA).
- Sheltered workshop training.

Example

Project title: Saleable Skills Training Program

Contact person: Maureen Otto, Saleable Skills Training Program Director, Coronado Senior High School, 1590 W. Fillmore, Colorado Springs, Colorado 80904

Funding source: ESEA-VI-B federal grant awarded through the Division of Special Education, Colorado Department of Education, as a career/vocational education model program and the local school district VI-B flow-through monies.

Number and age range of students served: Approximately 60 to 65 students ages 15 through 19 enrolled in the Special Education Department at Coronado Senior High School including those identified as significantly limited intellectual capacity/educable mentally retarded, perceptual communicative/learning disabled, and significantly identifiable emotional behavioral disorders/emotional disturbance.

Criteria for placement decisions: Special education students who meet the criteria established by Colorado state law and implemented through the Colorado Process Model and who meet the criteria for *handicapped children* as defined by Public Law 94-142.

Abstract of program: The Saleable Skills Training Program is part of a comprehensive career/vocational education model for secondary aged handicapped students through the combined efforts of regular educators, special educators, vocational educators, vocational rehabilitation services, administrators, community people, employers, university personnel, and state department personnel to assure that handicapped students will have career/vocational training that is relevant to the job market, meaningful to their career aspirations, and realistic to their fullest potential.

This multidisciplinary approach, which uses the involvement of the above-named personnel, is being de-

veloped through a sequence of inservice, community survey, and curriculum writing sessions. This is to ensure that special needs students will receive training from persons competent in relative understanding of the handicapped student and in the relevant knowledge necessary to provide a curriculum based on career/vocational education. As a result, a vocational component will be implemented in each student's individualized education program.

A variety of procedures will be used in providing training for students. First year students will be involved in an exploratory skill program where they will receive exposure to 8 to 10 cluster skill areas. Students will then move into the skill training area(s) based on interest, aptitude, vocational evaluation, and exploration. After students satisfy the performance objective of the training program, they will be placed in work experience. Upon completion of work experience, students will be certified by the employer as being competent workers, or will be recycled back into the training area. If the student is certified as being a competent worker, he or she may then be placed in an on-the-job training situation with local agencies providing matched funding to the employer. When students have successfully completed this process they will be placed in a permanent work situation.

Training is designed to take place both within the school setting and with employers in the community who have offered their settings as classroom training sites. The ultimate aim is to create an atmosphere in which all facets of the community can work cooperatively in helping to develop marketable career decision making skills and vocational skills in each student, which will result in meaningful job placement and successful citizenship.

Skill training areas included:

- **Food Service:** Occupations related to the food industry will be explored by the student in this cluster. Experiences will be directed toward fast food and full service restaurant operations including sanitation; dishwashing; fry cooking; grilling; busing; preparing salads, sandwiches, and beverages; food storing and care responsibilities. In addition to the school classroom kitchen, local restaurants will be used as classroom training sites to give the students experience in working with commercial equipment. Local job opportunities will be explored.
- **Woodworking Industries:** This construction cluster provides students with beginning skills and knowledge in building maintenance, painting, carpentry, roofing, production techniques, cabinetry, finishing, and dry-wall. Actual work situations will be implemented through consignment jobs from local industry and in the production of saleable items through

local businesses. Safety will be stressed at all times, and local job opportunities will be explored.

- **Auto Detail:** This cluster provides students with skills and knowledge in engine cleaning and painting, upholstery cleaning and repairing, washing, polishing, and waxing. Other skill areas included are tire changing and balancing and undercoating. Local job opportunities will be discussed.
- **Metal Fabrication:** This cluster provides students with beginning skills and related knowledge in shielded metal arc welding, oxyacetylene welding, MIG (metallic inert gas) and TIG (tungsten inert gas) welding, and related metal fabrication skills. Safety will be stressed at all times. Job opportunities in local industry will be explored.
- **Exploratory Skill Program:** The primary purpose of this program is to provide first year students with exposure to 8 to 10 cluster skill areas. The teachers and the vocational rehabilitation counselor will identify whether a student has sufficient aptitude and interest in a particular occupational area to consider having that student go to a more in-depth experience with that particular occupation. Basic functional work skills and behaviors will be developed.

Separate Facility Programs

Students participate in work preparation programs designed for students with special needs housed in facilities designed to meet the needs of very severely disabled individuals. A major focus of the program may be self care and independent living. Participation with nonhandicapped individuals must be integrated within the disabled student's program. Expectations for employment may be for semiskilled, unskilled, and assembly/benchwork occupations in competitive employment settings. Skilled and technical occupations with extensive facility, equipment, and/or job modification may also be possible. Job and/or facility/equipment modification may be required as well as frequent job follow-through.

This type of programing may include:

- Vocational education (skill training and cooperative education).
- Individual vocational education.
- Temporary vocational education.
- Prevocational evaluation.
- Special education/vocational rehabilitation work-study.
- Experience based career education.
- Specialized youth employment programs (CETA).
- Sheltered workshop training.

Example

Project title: Comprehensive Career and Vocational Services for the Low Incidence Handicapped

Contact person: Herbert Grulke, Director of Vocational Services, South Metropolitan Association, 250 W. Sibley Boulevard, Dolton, P.O. Harvey, Illinois 60426, (312) 481-8993

Funding source: Public Laws 94-142 and 89-313 monies combined with a local contribution. All funding is generated through the Special Education Joint Agreement.

Number and age range of students: The combined services are provided to approximately 400 students. Career education services are provided to students ages 5 through 21. Vocational services are provided to students ages 12 through 21. The students are encompassed in the following labeling categories: hard of hearing, deaf, visually impaired, communication disabled, orthopedically impaired, multiply handicapped, and autistic.

Criteria for placement: Special education students who meet criteria established by the Illinois State Board of Education. Students must reside in one of the 55 school districts in the southern metropolitan area of Cook County, Illinois.

Abstract of program: This program concentrates on the development of both career and vocational skills. Students in the 5 through 21 year age range are exposed to a career education model designed for the special needs learner. The model is designed to be infused into the currently existing classroom curriculum. Supportive and resource services are provided by a career education coordinator. The students are involved in awareness, exploration, and preparatory career education activities. The process focuses on activities designed to provide the student with skills in self awareness, information processing, decision making, work attitudes, and values.

Vocational services are provided to those students in the 12 through 21 age range. Direct services are primarily provided to those students labeled multiply handicapped and autistic. A two phase approach is implemented relative to vocational training. The first phase concentrates on the development of occupationally related skills through the use of work sample training. The second phase consists of implementing these skills in a simulated work environment. Work adjustment behaviors are emphasized in this simulation approach. The culmination of vocational training occurs with the placement of the student in a community employment situation relative to his or her needs, interests, and previous training experience. This comprehensive approach assures the students' competency in making realistic career choices and provides the experiences to enable them to become contributing members of the labor market.

Unique Programs

These programs may include work preparation alternatives designed for students in unique situations and may be offered on an individual basis. Opportunities for students to interact with their nonhandicapped peers usually must be planned or created. Expectations for employment may include sheltered workshops where extensive training and supervision are provided, work activity centers where activities are carefully engineered, and homebound programs where a wide variety of occupations are possible. Students in these programs are likely to need job and/or facility/equipment modifications and extended job follow-through.

This type of programing may include individual vocational education and individual special education work-study (in some cases provided in the student's home).

Determination of which environment (regular, mixed/integrated, separate in-school, separate facility, or other) and which type of program within that environment is less restrictive and most appropriate for individual students must be made carefully. Clearly, such decisions must be made with clear understanding of individual differences and needs. Currently, these programs represent more of an ideal, something which educators should move toward in the future.

INDIVIDUAL DIFFERENCES

Exceptional individuals represent an extremely heterogeneous segment of the national population. This is equally true for individuals who are categorically identified (e.g., mentally retarded, deaf-blind, orthopedically handicapped). Determination of the least restrictive environment for handicapped students must be made with clear recognition of the fact that programs are designed for students, not vice versa.

The offering of an administrative continuum of places and programs where work preparation can occur does not necessarily diminish restrictiveness. Miller and Switzky (1978) stated "there may be cause to doubt that a series of least restrictive environments can a priori be prescribed without reference to the individual(s) who will inhabit them" (p. 128).

A number of student and situational factors should be considered when determining the least restrictive work preparation environment for an individual student. Student factors are the characteristics, needs, and experiences the student brings to the learning environment. Situational factors are the characteristics of a given program provided in a given place (e.g., a carpentry program in a regular or integrated/mixed vocational setting) which affect student learning. These factors should be evaluated and considered prior to

the IEP meeting when placement decisions for individual students are made.

Student related factors include:

- Previous experience with work and daily living activities. Has the student participated in career awareness, orientation, and exploration activities? Prevocational, education, vocational guidance, and/or vocational evaluations?
- Interest in a given occupational area. Has the student participated in career guidance and counseling experiences, acquired occupational information, observed role models, and expressed interest in an occupation or group of related occupations, or a particular working environment?
- Current level of academic performance. What is the student's current level of performance and how does it compare with performance minimally required for success in the occupation for which training is desired?
- Current level of social performance. How efficiently or effectively does the student manage his or her behavior in various work situations as compared to the self management skills required for the job? How appropriately does the student interact with peers and authority figures in work situations as compared to the interaction skills required for success in the occupation?
- Attitudes about self. Does the student exhibit positive self attitudes or does she or he approach new experiences with an expectation of failure?
- Parental attitudes about the various options. How do the student's parents perceive the various options, and which ones do they favor for their child?
- Physical, mental, and emotional tolerances. To what extent can the student handle physical stress or exertion, extended periods of concentration, environmental stimulation, interactive environments, activity oriented situations, and/or distractions within the environment that may be encountered in the occupation?
- Learning style and mode. What particular learning approaches does the student use most effectively? Does the student learn most efficiently through visual, auditory, kinesthetic, olfactory, tactile modes, or combinations thereof?

Situational factors should be evaluated in light of the degree to which they can be modified or altered for the individual student. Based in part on concepts described by Reynolds and Birch (1977), these factors include:

- Teacher attitudes. What are the attitudes expressed and demonstrated by teachers in the various work preparation programs toward handicapped students in general and the individual student specifically?

- Physical location and layout of the class. Is the classroom setting accessible or can it be modified if necessary?
- Curriculum flexibility. Is the curriculum sufficiently flexible to meet the needs of a variety of students?
- Instructional materials. Are instructional materials available which are appropriate for students with varying skill levels, and/or can existing materials be customized to meet individual needs?
- Environment. Can lighting, sound, and seating arrangements be adapted or modified for a variety of student needs?
- Equipment. Is the equipment accessible or modifiable for use by handicapped students and workers, if necessary?
- Instructional methods. What kinds of instructional methods are used in the various programs, and how flexible are they? To what extent is instruction individualized?
- Behavior management techniques. Is the teacher able to implement a variety of behavioral management techniques if necessary?
- Peers. What are the general performance levels of other students in the program? How many students are currently enrolled?
- Peer attitudes. What are the general attitudes expressed and demonstrated by students in the program with regard to handicapped students?
- Evaluation methods. What evaluation procedures are used, with what frequency, and under what circumstances in the various program options?

Once these and other student and situational factors have been evaluated, the supportive services required by the student to participate in the most normal setting possible can be determined. Some of these include:

- Transportation. Does the student require special transportation services to participate in the various program options?
- Instructional assistance. Does the student need an interpreter, reader, instructional aide, tutorial aide, bilingual aide?
- Modified equipment or materials. What aspects of the environment must be modified to meet the student's needs?

One method for guiding the evaluation of student, situational, and support services factors is through the use of a set of evaluation summary forms. Sample forms are presented in Appendix C.

These forms could be completed by a vocational evaluator in consultation with the vocational counselor, vocational educator, and special educator. The completion of such forms encourages a comprehensive view of the student and his or her needs and past experiences as well as alternative placements. The information contained in the student summary form should be available in student records, previous IEP's, and prevocational evaluations. The situational factors should be discernible from classroom observations, student/teacher interviews, and/or assessment instruments.

Clearly, such forms can assist the IEP team in determining the degree to which diverse regular environments exist and the degree of modification and/or level of supportive services required in those environments to accommodate individual handicapped students. Regardless of the ultimate appropriate placement, it is imperative that handicapped students be afforded the opportunity to participate in work preparation programs that will prepare them for personally meaningful and challenging careers.

Work Preparation Issues and Recommendations

The employment outlook for disabled adults is dismal. For example:

- Only 40% of the adult disabled population is employed, as compared to 74% of the nondisabled population (Levitan & Taggart, 1976).
- Of those disabled individuals who are employed, 85% earn less than \$7,000 per year, and 52% of these individuals earn less than \$2,000 per year (US Census Bureau, 1976).
- The cost of dependency among unemployed disabled individuals currently exceeds \$115 billion per year and is escalating rapidly (Razeghi, 1979).

Clearly, such statistics reflect complex and interrelated social, economic, and educational problems and issues. Some of these issues relate to the accessibility and availability of educational programs. Others relate to disincentives to work such as Supplementary Security Income (SSI), inadequate transportation services, and architectural and attitudinal barriers to employment.

Educators continually are involved in a number of complex issues that must be dealt with as they begin the process of developing appropriate work preparation programs for students. Some of these have been identified here and are discussed along with several possible strategies for meeting the problems posed.

ISSUE: LEAST RESTRICTIVE ALTERNATIVE

The central and most critical issue in secondary work preparation revolves around the concept of least restrictive alternative (Higgins & Ross, n.d.). This issue concerns not only the alternative administrative arrangements available and most appropriate for each handicapped child (i.e., the continuum identified in Chapter 2), but also how and to what extent handicapped youths, including those who range from mildly to profoundly handicapped, can be accommodated in regular school programs in the most inclusive ways possible. In terms of work preparation, this issue also relates to how handicapped students become prepared for participation in less restrictive work related programs; the eligibility requirements they must meet in order to participate; and the purposes and methods used to evaluate or assess their readiness for participation.

In many states a number of alternative arrangements are available for handicapped students. For example, within vocational education an increasing number of students have access to regular vocational programs with and without support services and to separate programs. However, these alternatives do not yet exist in all states. In most states where alternatives do exist, they are primarily available for mildly handicapped youths for whom support services are availa-

ble. For these students much less may be required to accommodate them in regular programs than may be required for some more severely handicapped individuals.

In recent years special and regular educators have begun to recognize the need to prepare handicapped students for participation in less restrictive work preparation programs. Increasingly, at least mildly handicapped youths are being afforded the opportunity to participate in career education and prevocational education activities. These opportunities, however, are not yet available for the majority of handicapped students.

Accessibility to alternative work preparation programs in some states is defined in terms of eligibility or admissions requirements. While in many instances these requirements are applied to all students, they may be disproportionately restrictive in terms of requirements for learning to perform occupationally relevant duties. Commonly referred to as *creaming*, these requirements may be designed to ensure that only those students most likely to succeed in the courses will be allowed to enroll. In some other states, quotas are established for admittance of specified percentages of handicapped students. Though usually intended to ensure participation by handicapped students in regular programs, the effect may resemble *creaming*. In some instances, when the quota has been filled additional handicapped students may not enroll regardless of the remaining number of openings in the program (a recent court ruling pointed to the illegality of such practice in one school district in the northeast).

In many states accessibility to alternative work preparation programs may be determined on the basis of student assessment results. These assessments are intended to delineate a student's vocational strengths and limitations and vocational interests. In some localities these results are used to screen out rather than screen in handicapped students. In some instances the assessment process may require the student to leave the school environment for 3 to 4 hours per day (including transportation) for 2 to 9 weeks. Often these assessments are provided by vocational rehabilitation and thus coincide with the age at which rehabilitation begins serving handicapped individuals (age 14 to 16 or older) in the particular state. In some states or localities this practice limits the possibility of handicapped students enrolling in vocational education programs because many programs begin in the junior year of high school. Thus, handicapped students who wish to participate in vocational programs must wait to enroll until they are 16 years of age when they are assessed and then may not be able to enroll because they become 16 during their junior year in high school. Clearly

this is a catch-22 situation which limits student participation in less restrictive environments.

Vocational assessments are generally used for predictive rather than diagnostic or prescriptive purposes. Thus they tend to predict the probability of a student's success in an occupation rather than identifying the skills the student must acquire in order to learn to perform in the occupation. Furthermore, the purposes and results of these assessments are not always fully understood by those who administer them, interpret their results, or use them to define the most appropriate alternatives for an individual handicapped youngster.

Recommendations

Alternative work preparation administrative arrangements must be available for each handicapped student, and such arrangements must be conceived comprehensively. Similarly, the student and situational factors outlined in Chapter 2 must be considered prior to each student's IEP meeting and resulting program placement. Factors related to the situations selected must be adjusted to meet individual student needs, or new alternatives must be defined to meet those needs.

Alternative work preparation programs must be clearly explained to handicapped students and their parents during or prior to each handicapped student's IEP meeting. All those involved in a student's IEP meeting must understand these options and their advantages and disadvantages for the individual student prior to making placement decisions.

Prior to secondary work preparation, increased emphasis should be placed on the participation by handicapped students in the following types of experiences, as appropriate for the individual, which are free of stereotyping and bias with regard to race, sex, national origin, and handicap:

- Career awareness, orientation, and exploration; experiences infused within the ongoing curriculum encountered in regular, resource, and separate classes.
- Prevocational education including industrial arts and home economics. Rotation programs where students explore a variety of vocational education classes for short periods of time (e.g., 1-2 hours per week) may also be provided.
- In-school work experience.
- Short term community based exploration.
- Opportunities to observe and learn about a variety of workers' occupations and work sites through field trips, classroom visitations by workers, and telephone or videotape interviews with workers.
- Opportunities for work and work site observation through field trips.
- Opportunities to examine and explore work related

interests and abilities through prevocational evaluation, classroom simulations, and class projects.

These experiences may be specified within the student's IEP under the vocational development curricular area if the student requires special educational and related services to succeed in such experiences. Participation in regular prevocational programs should be specified in the IEP under the section describing student participation in regular programs. Another option is to specify the need for such experiences through informal communication forms used to transmit instructionally relevant information (e.g., curriculum/equipment modification suggestions, student interests and strengths) between special educators and regular and vocational educators. The school counselor and career education coordinator may also be of assistance in making sure handicapped students are included in career exploratory activities conducted for nonhandicapped students. Funding for special inservice programs and/or program development may be available from the state department of education through special education and career education offices.

Regardless of the type of activities defined for and with an individual student or the type of setting in which the student participates, she or he must have the opportunity to (a) acquire information about work and daily living; (b) encounter a variety of exploratory experiences; and (c) interact with positive role models. These three factors are perceived as significant contributors to informed career choice.

The vocational support team concept should be expanded. In this approach, a team of special educators and other professionals work with vocational educators in designing and modifying curricula, equipment, teaching methods, and instructional materials for use with handicapped youngsters in regular programs. Support teams offer direct assistance to vocational educators and students. Examples of these programs are found in Montgomery County, Maryland; Stillwater, Oklahoma; Golden, Colorado; and Boulder, Colorado.

The types of work preparation programs in which handicapped students are currently participating at the state and local levels should be examined. In conducting such a needs/services analysis the following points are suggested:

- The IEP should be used as the identifier in determining counts of students served in various programs (including vocational education and CETA). This basic count should then be broken down into categories related to whether or not supportive services are provided.
- Data should be collected that can be used to determine which students are being served, where they are being served, and the outcomes of such service with regard to each work preparation service deliv-

ery mode (e.g., special education, vocational education, CETA). Figure 7 is a sample data collection form designed for vocational education but which could be modified for any work preparation program area. This form requires the identification of the number of students served in the various programs within the continuum of services. A similar form could be developed which breaks the alternatives into occupational areas (e.g., trades and industries) or specific occupations (e.g., carpenter) to examine occupationally specific enrollments and give indications of lumping, or placing unusually large numbers of students in specific kinds of programs. Such placements may be indicative of stereotypic or discriminatory practices.

Based on the needs/services analysis, needs to expand alternatives in programing should be determined. In this determination, particular attention should be paid to groups of students who appear to be disproportionately served by a particular type of program. Further review of any such disproportionality should be undertaken to see if such placements are appropriate and least restrictive for individual students. If placements are deemed inappropriate and more restrictive than necessary (based on student and situational factors discussed in Chapter 2), methods for remedying the situation can be designed. Such methods may include policy refinement or personnel development activities.

Flexibility in programing should be encouraged and should specifically allow for the open entry/open exit concept. For example, a particular handicapped student may be able to achieve a specific number or type of competencies within an occupational area. To achieve these competencies it may be appropriate for this student to participate in a mixed/integrated vocational education skill training program setting. Once those competencies have been mastered it may be appropriate for the student to exit the mixed/integrated vocational education skill training program and enter a mixed/integrated vocational cooperative program, a separate vocational cooperative program, or a special education work-study program. Once enrolled in a work experience program the student would be placed in a job requiring the use of those competencies with a training plan indicating how those skills will be reinforced and built upon in the work setting. The employability skills the student will learn and demonstrate should also be specified in the training plan.

With knowledge of the student situational factors discussed in Chapter 2, the plan for this approach can be delineated in the student's IEP. The major duties the student is expected to learn would be listed as individual annual goals (e.g., the student will understand the processes and procedures for maintaining plants). The major tasks associated with performing

each duty would form the foundation for defining the short term objectives (e.g., the student will add mulch to new seedlings in accordance with procedures specified by the instructor). Evaluation procedures would be performance tests requiring demonstration of correct procedures without assistance. The amount of time it is expected to take for the student to learn to achieve the competencies would be listed under duration of services and under evaluation scheduled. If the student has not achieved the required skill in the amount of time allotted, a reevaluation of the schedule and the placement should occur.

If the student does achieve the competencies, placement on a work site may occur. Again, if the student requires special education and related services in relation to the job placement, these services should be specified in the IEP. Annual goals, short term objectives, duration of services, evaluation criteria, methods, and schedule are specified. An example of an IEP illustrating multiple services is given in Figure 8.

Clearly, other arrangements are possible. Some students may learn to perform specific duties within vocational programs, practice those skills through participation in work experience programs, reenter the vocational program to acquire additional skills, and then move back to a work experience program to practice both previously and newly acquired skills. Other students may not require this type of structured program. This approach does allow students to acquire new skills in a structured or supervised environment and then to transfer practice and reinforce those skills in a real work environment with less structure and school supervision.

Another flexible approach could involve temporary vocational training in a substantially separate vocational program, enrollment in regular vocational education, participation in special or regular work experience, and reentry into regular vocational education. Temporary vocational education would assist the student in acquiring specific skills needed for entry in the regular or mixed/integrated vocational program. In the regular or mixed/integrated program the student would learn a specific set of competencies required for placement on a job where those skills would be practiced and reinforced. After a period of time on the job, the student could then reenter the temporary program or the regular or mixed program. Recycling could continue based on the student's interests and needs. Obviously, numerous other flexible arrangements can be imagined and implemented.

Eligibility requirements used to determine student enrollment in work preparation programs should be examined. A determination should be made of the degree to which such requirements reflect skills needed for performance in the occupation or relate primarily to skills needed for performance in the classroom. A com-

FIGURE 7. Needs/Services Analysis.

	Regular	Mixed/integrated	Separate	Separate facility	Other
Disability	Full integration in voc. ed. with support services outside voc. ed.	Participation in regular voc. ed. with support services in voc. ed. such as interpreters, readers, teacher aides	Full participation in voc. ed. designed for students with special needs but in a high school setting; possibly students will spend part of time in regular academic program	Full participation in voc. ed. programs designed for students with special needs; housed in facility designed to meet needs of severely disabled; total program may include emphasis on self care and independent living	Includes voc. ed. designed for students in unique situations; programs may be offered on an individual basis
1. Mentally retarded					
2. Visually handicapped					
3. Hard of hearing					
4. Deaf					
5. Deaf-blind					
6. Other health impaired					
7. Orthopedically handicapped					
8. Seriously emotionally disturbed					
9. Learning disabled					
10. Multiply handicapped					
11. Speech impaired					
Expected employment	Competitive employment, technical, skilled; may need facility/job modification	Competitive employment, skilled, semiskilled; May need some facility/job modification; may need periodic job follow-through	Competitive, semiskilled, unskilled; likely to need facility/job modification; may need occasional job follow-through	Competitive employment possible with frequent job follow-through; unskilled need job/facility accommodation; sheltered workshops, assembly benchwork	Sheltered workshop possible with extensive training and supervision; work activity center, carefully engineered activities; homebound program

FIGURE 8. Sample IEP Form*

School district responsible	XYZ County	Date(s) of meetings:	6/11/80
			6/10/80
STUDENT	L. H. Haskins		
	(name or number)		
Current placement	Maryville High	Persons Present	Relationship to Child
Eligibility certified (date)	6/1/80	J. Haskins	Parent
Period of IEP	9/1/80-6/1/80	L. Smith	Teacher
		B. Grimes	Vocational counselor
		S. Lang	Principal

Curriculum Areas Requiring Special Education and Related Services	Present Level(s) of Performance	Annual Goals	Objectives Attained (dates)
Area 1 Work Preparation	Reads tags and labels 100%. Recognizes symbols for poison and danger. Computes quarts, pints, gallons. Knows basic computation (+, -, ÷, ×).	Understand processes and procedures for maintaining plants. Maintain plants on the job.	
Area 2 Daily Living/Employability skills etc.	Reads & writes numbers and number words. Tells time by hour, minute. Knows and can write personal identification information.	Maintain checkbook. Develop punctuality skills. Complete job application forms.	

Special Education and Related Services to be Provided	Personnel Responsible (name and title)	Date Services Begin	Duration
Curriculum Area 1 Work Preparation—Vocational: Agriculture/Horticulture	M. Cline, instructional aide, under supervision of J. Dawson, vocational instructor	9/1/80	3 hrs. X 5 days X 6 mo.
Curriculum Area 2 Work Preparation—Work Experience etc.	S. Thomas, work-study coordinator	3/1/80	1 hr. X 1 day X 4 mo.
Daily Living/Employability Skills	L. Smith, special education teacher	9/1/80	daily X 1 hr. X 9 mo.

*Prepared by the Policy Research Center, The Council for Exceptional Children

Sample IEP Form (cont.)

Name or # _____

A. Describe the extent to which the child will participate in regular education programs.

Will participate in regular horticulture program with assistance of

instructional aide daily for 6 months. General Mathematics I (remedial

program open to all students), lunch, PE, and Future Farmers of America,

vocational youth organization.

B. List the criteria, evaluating procedures, and schedule for determining whether the short term objectives are met.

Short term objectives	Objective criteria	Evaluation procedures	Schedule
1. Add mulch to new seedlings.	accuracy unassisted 3 out of 3 trials	performance test in class	9/20/80
2. Apply chemical treatments to diseased plants.	accuracy unassisted 3 out of 3 trials	performance test in class	11/10/80
3. Apply weed killing compounds to lawn.	accuracy unassisted 3 out of 3 trials	performance test in class	2/1/80
4. Perform plant maintenance tasks on the job.	performance test on the job 100% accuracy on all trials.	rating scale completed by employer	4/25/80
Write checks to \$100 and complete deposit slips to \$200.	5 of 5 trials	performance test	10/15/80
Balance checkbook using bank statements.	5 of 5 trials	performance test	12/15/80
Use time clock in class.	correct usage 18 of 20 days consecutively.	performance test	11/1/80
Maintain record of tardiness and absenteeism for all classes.	4 of 5 days for 6 months	daily/monthly record	2/30/80
Use time clock and be on time to work.	5 of 5 days for 3 months	employer records	6/1/80
Complete personal information card.	2 of 2 trials	completed card	9/15/80
Complete 3 different application forms using personal information card if needed.	3 of 3 trials	completed application forms	2/1/80
Complete job application form for work-study job.	1 of 1 trials to employer satisfaction	completed application form	2/30/80

Date of parental acceptance/rejection _____

Signature _____

Signature _____

mon eligibility requirement example is student reading level. Does the reading level required of students exceed that required for performance on the job because the textbook used in the program has a higher readability level than job related materials? Eligibility requirements that relate to classroom performance rather than job performance should be eliminated.

Vocational assessment practices should be carefully examined. For many handicapped students it may be appropriate to incorporate vocational evaluation procedures in career exploration activities during junior high school years. This would allow students to define their current interests and aptitudes. Further, it would allow students the opportunity to acquire necessary skills for participation in their preferred work preparation program. It would also give teachers the opportunity to acquire information relevant to planning instructional activities, and it would give parents the opportunity to begin focusing on the work and adult living potential of their children.

Assessment results should be clearly explained to those involved in developing a student's IEP. Counselors and vocational evaluators should be involved in explaining the assessment results to the student and her or his parents. Recommendations from the vocational evaluator and counselor should be written in clear and understandable language that focuses on "where we go from here."

ISSUE: COLLABORATION

A critical need at the local, state, and national level has been for special education, vocational education, vocational rehabilitation, and CETA, along with other agencies serving handicapped persons, to work together in allocating resources and services so that handicapped individuals may be most effectively served. The current emphasis is on policy development and interagency agreements at all levels of government. The Bureau of Education for the Handicapped, the Bureau of Occupational and Adult Education, and the Rehabilitation Services Administration have issued memorandums of agreement and conducted a national conference directed at this need. Additionally, a number of national research projects have been funded which are designed to gather information on current progress and to provide technical assistance to states in these efforts. For example, at the national, state and local levels, improved collaborative and cooperative efforts between local education agencies and Comprehensive Employment and Training Act (CETA) programs are evident with regard to vocational education programs for economically disadvantaged individuals. With the elimination of income eligibility requirements for participation of handicapped persons in CETA programs, further emphasis on inclu-

sion of CETA (and the Department of Labor) in interagency agreements is anticipated.

Despite the requirement in the 1963 Vocational Education Act for the development of cooperative agreements at the state level between vocational education, special education, and vocational rehabilitation, full and comprehensive implementation of these agreements has not occurred. Basically, collaboration remains at a minimum. Although written agreements will formalize the administrative arrangements, concerned professionals need not wait to develop their own cooperative arrangements with their colleagues in the development of appropriate work preparation programs for their students.

Recommendations

Resources available for serving handicapped students through cooperative planning by vocational education, special education, vocational rehabilitation, and CETA prime sponsors should be delineated in writing. An example of such a delineation of activities, services, and resources available from special education, vocational education, and vocational rehabilitation is provided in Appendix D. Primary, secondary, and tertiary responsibility for these services should be specifically delineated. Similar resource specifications should be defined for other service agencies including CETA, mental health/mental retardation, developmental disabilities, and departments of corrections, health, welfare, and human resources.

Participation should be encouraged in regional and national workshops focusing on interagency cooperation sponsored by national projects.

Written interagency agreements at the state and local levels should be developed, refined, and implemented. This process should involve vocational education, special education, vocational rehabilitation, CETA prime sponsors, other service providers (e.g., department of corrections, department of mental health/mental retardation, departments of guidance and counseling), consumer organizations and advocates, and career education coordinators.

ISSUE: PERSONNEL PREPARATION

Few preservice education programs are preparing personnel to provide career and vocational education to handicapped students. Inservice education is more frequently provided to special and vocational educators through local or state workshops and conferences. National and regional workshops have been sponsored by the American Vocational Association (AVA) and The Council for Exceptional Children (CEC). Further personnel preparation efforts have been extended through the state and local chapters of the National

Association of Vocational Education Special Needs Personnel (NAVESNP), and affiliate of AVA, and the Division of Career Development (DCD), a division within CEC. Both of these associations have newsletters and journals designed to inform their members and the field of new developments in programing and research.

Cross training of special and regular/vocational educators persists as a critical need. Such cross training may occur within the context of existing preservice coursework as required in Texas or through add-on courses as required in Georgia, Colorado, West Virginia, and Oklahoma (Higgins & Barresi, 1979). In addition, expanded inservice programs are critically needed, not only for vocational educators and special educators but also for adult educators, English as a second language instructors, program administrators, all counselors, and others.

Recommendations

In order to enhance and expand the career opportunities for handicapped students participating in special education work experience programs, the following steps are suggested:

- Preservice education efforts in special education secondary programing should be expanded and include at a minimum course requirements in vocational cooperative education.
- Secondary special educators should be provided, through preservice and/or inservice education, with experiences through which they learn to assess labor market needs, plan cooperative programs, identify and evaluate work preparation options, use the services of a broad variety of agencies in the community, develop student training plans, and develop experience based career education programs.
- Secondary special education work experience coordinators should learn to develop student training plans which include (a) goals and objectives for the placement (e.g., work habits and attitudes and specific job skills); (b) clear delineation of the roles and responsibilities of the student, parent, employer, coordinator, and rehabilitation counselor (if applicable); (c) evaluation criteria and frequency; (d) rationale for site selection; and (e) accommodations necessary for the student.

Funds for such inservice programs are available from state departments of education. Individuals interested in developing inservice programs should contact their state department of special education and the state vocational special needs coordinator. Other resources for conducting inservice programs include state vocational research coordinating units, vocational cooperative education university faculty, vocational special needs university faculty, and local chapters of

the Division of Career Development and National Association of Vocational Education Special Needs Personnel. Special education Regional Resource Centers and regional vocational curriculum coordinating centers may also have considerable relevant materials and may be able to provide inservice assistance.

It is recommended that inservice programs designed to increase the skill training emphasis in work experience programs be multidisciplinary. Inservice programs with this focus should be provided jointly by persons familiar with vocational cooperative education, secondary special education, and vocational rehabilitation.

In order to enhance and expand the career opportunities for handicapped students participating in vocational education or CETA programs, the following recommendations are made:

- Personnel preparation efforts should be expanded in relation to providing service to handicapped students.
- Personnel preparation efforts should emphasize learning style differences, curriculum modification, interagency collaboration, informal assessment procedures, equipment and environmental modification, individualization of instruction, and job restructuring or modification.
- Expanded emphasis should be placed on employability skill development within the context of specific skill training.
- Varied program time arrangements should be explored.

Funds for inservice programs in this area are available under Public Law 94-142 from personnel development funds allocated by the state department of special education. Similarly, vocational funds for program improvement and personnel preparation are also available. State university vocational special needs faculty, vocational research coordination units, the state vocational special needs coordinator, state and local affiliates of the Division of Career Development and the National Association of Vocational Education Special Needs Personnel, and state itinerant (or staff development) vocational special needs teacher educators may be helpful in program development, design, and implementation.

ISSUE: ALLOCATION OF RESOURCES

Perhaps the most pressing question facing state and local program administrators relates to funding. In a period of restricted fiscal resources, it becomes imperative that the resources available for the education of handicapped youths be allocated in the most cost-effective way possible. This is especially true when one considers the matching requirements delineated

under Public Law 94-482 for federal vocational education funds for handicapped and disadvantaged persons.

These set-aside funds, 10% of the basic state grant for programs for handicapped persons and 20% for disadvantaged persons, are to be used to pay 50% of the costs for educating handicapped and disadvantaged individuals in excess of the normal state and local per pupil allocation on an aggregated state basis. Known as the *excess costs provision*, this funding stipulation requires states to use state and local dollars to match federal dollars on a one to one ratio to pay for additional (or "excess") costs for educating handicapped and disadvantaged persons in regular programs (e.g., interpreters, instructional aides, equipment modifications). This provision, while causing some consternation at the state level, is clearly in keeping with our national belief in equity for all persons. It means that handicapped persons have a right to the same basic level of educational support as non-handicapped persons, and is in keeping with the equal benefits in education concept contained in the Vocational Rehabilitation Act of 1973 (Sec. 504). Further, the excess costs provision recognizes the state's responsibility for educating its handicapped students while simultaneously recognizing that this may be expensive. By contributing 50% of the excess costs, the federal government is alleviating part of this burden and is acting consistently with previous federal policy in serving as a catalyst for development, maintenance, expansion, and innovation in vocational education.

Some states are currently having difficulty in locating the matching funds required and in determining the most cost-effective means for providing the wide range of services and programs needed by handicapped students and specified in their individualized education programs. Both the Bureau of Education for the Handicapped and the Bureau of Occupational and Adult Education have recognized these concerns and have, as a result, been providing technical assistance to states in this regard.

Recommendations

State department of education personnel in vocational education and special education should be contacted to identify alternative funding methods used in other school districts in the state. With state department of education personnel, ways in which state and local funds can be shifted from other categories into programs serving handicapped students should be explored.

The Bureau of Occupational and Adult Education and the Bureau of Education for the Handicapped should be contacted, in conjunction with state department of education personnel, for technical assistance.

State and local cooperative agreements for use of resources available through multiple agencies should be developed.

ISSUE: DECLINING ENROLLMENTS

Within the context of service delivery, recent data indicate that the enrollment of handicapped students declines rapidly at the secondary level (USOE Position Statement on Comprehensive Vocational Education for Handicapped Persons, 1978; Davis & Weintraub, 1978; Malouf & Halpern, 1976; Metz, 1973; Razeghi, 1979). This decline is evident beginning at approximately ages 9 to 12 and becomes more dramatic at ages 15 to 21. These two periods of decline correspond roughly to the shift between elementary school and junior high/middle school and the shift from junior high/middle school to high school and school completion. What happens to these handicapped students once they leave elementary school?

A definitive answer to that question cannot yet be made because of inadequate data collection and analysis. However, several tentatively stated contributing factors may include the following:

1. Some students within specific disability groups may no longer need special education and related services. This may be true primarily for some students with speech impairments which can often be remediated during childhood; mild learning disabilities and serious emotional disturbances when intervention is intensive and begins early; mild orthopedic handicaps and mild hearing impairments when interventions have led to adequate independent functioning; and other health impairments when medical and educational interventions have eliminated the need for services or because of death in childhood.
2. A disproportionate number of handicapped students may drop out of school between elementary school and junior high/middle school, and between junior high/middle school and high school, because insufficient special education and related services are available and/or because they feel disenfranchised within the school.
3. Some handicapped students may be incorporated into the general school population because insufficient special education and related services are available and/or because information regarding the needs of individual students is not transmitted to the appropriate professionals.
4. There may be inadequate child find efforts undertaken to locate students who either "fell through the cracks" in elementary school or whose need for special education and related services does not become pressing until they encounter the complexities and demands of postelementary school programs.

5. There may be combinations of these factors and others which contribute to the problem.

Clearly, it is unlikely that decreased need for service by handicapped youngsters ages 12 to 21 is the primary reason for the declining enrollment among that age group. Just as clearly, it is highly likely that declining enrollment is largely the effect of factors 2 through 5. However, insufficient data are currently available either to assess the extent of the problem or to determine causes and remedies. To address the problem adequately it is necessary to determine the degree of difference between elementary and junior high/middle school enrollments and junior high/middle school and high school enrollments and to partition out those differences according to contributing cause.

The American Coalition for Citizens with Disabilities undertook a preliminary analysis of the enrollment shifts in one state in 1979 through a project funded by the Bureau of Education for the Handicapped (Razeghi, 1979). Their efforts will be expanded to five states in 1979-1980. Their studies coupled with similar endeavors, such as that conducted by Ernst (1978) of handicapped and nonhandicapped school dropouts, will hopefully lead to trend analysis, cause delineation, and policy analysis, which can in turn lead to policy refinement and program development and implementation directed toward meeting the unmet and undermet needs of handicapped youths.

Recommendations

Major responsibility for student tracking should be assigned to one individual or office within each school district. Since guidance counselors at the junior and senior high school level have primary responsibility for assisting students in scheduling and course selection, they may be best able to fulfill this responsibility.

Records of annual goals and short term objectives accomplished by each student as she or he progresses through the educational system should be maintained and transmitted to each new receiving teacher. Goals and objectives that were not accomplished should also be identified and transmitted.

Students at risk of dropping out of school should be identified and provided with counseling services to determine reasons for dissatisfaction with school. Resolution of difficulties should then be sought.

Summary statements indicating that a student no longer needs special education and related services should be transmitted to receiving schools.

Child find efforts should be increased at the secondary school level to identify those students needing but not currently receiving special education and related services.

Articulation agreements should be developed between secondary and postsecondary institutions to

ease the transition of students between these two levels of education.

ISSUE: TRANSITIONAL PROGRAMING

In terms of service delivery, there is a critical need to assist secondary students in making a successful transition from school to work and from the life roles defined by adolescence to those expected in adulthood. The need for transition has been repeatedly expressed in the literature (e.g., Bailey & Stadt, 1973; Bruce, Firth, Grimsley, & Halverson, 1976; Goldhammer & Taylor, 1972; Hoyt, 1975; Marland, 1971; Passow, 1975a, 1975b).

This need is especially acute for handicapped youths and young adults. However, few youths ages 18 to 21 are currently being served despite the fact that Public Law 94-142 mandates free and appropriate public education service delivery for all handicapped persons ages 3 to 21 (except where contravened by state law). In some states (e.g., New York, Michigan, New Jersey) services are mandated for handicapped individuals beyond the age of 21.

Today's handicapped young adults differ in the degree to which they have had experiences within educational systems. These individuals include those who:

- Have remained unserved since the passage of Public Law 94-142 because of inadequate child find efforts for this age group.
- Are unserved because they either dropped out of school or were "lost" in regular programs upon entering secondary schools.
- Were 17 or 18 years of age when Public Law 94-142 came into effect and received limited benefit from it because they had reached the typical school leaving age or would do so soon.
- Began to receive services at ages 15 or 16.
- Were institutionalized and not receiving an education or were receiving varying qualities of educational services within institutions.
- Had been receiving public school services prior to the implementation of Public Law 94-142 but had been or are underserved.
- Had been receiving free and appropriate education prior to Public Law 94-142.

These young adults also differ considerably in terms of the type and extent of service they need beyond age 18. Students who have completed a work preparation or academic program may have varying needs for assistance. These needs for service may range from very little assistance to extensive and intensive follow-through that may continue to exist throughout life. The types of service needs may include assistance in obtaining and retaining employment, establishing stable social and family relationships, locating and benefiting

from community service, and securing additional education and training.

It should be noted that some services have been provided to this age group by specific organizations and agencies, such as vocational rehabilitation, developmental disabilities, and community organizations. However, these efforts have been extended most frequently to mentally retarded persons, have seldom exhibited cooperative planning and coordination with school programs, and have not provided for a full range of supportive services in least restrictive educational and work environments.

Recommendations

Upon completion of a work preparation program, handicapped students should be provided with transitional services. Depending on the age at which students complete work preparation, these services should be provided for from 1 to 4 years or, at minimum, through age 21.

Transitional programing should be specified in the handicapped youth's IEP. It may be conceived of as a follow-through on the student's IEP from previous years. Annual goals and short term objectives should emphasize skills the student will demonstrate on the job, in the community, and in the home. Services provided by special education and related services could include job placement; on-the-job followup; community, social, and family counseling; travel training; work adjustment training; recreation; and independent living.

Transitional programing may be provided by specially identified school counselors, school social workers, and special educators or work-study coordinators.

Transitional programing should include referral to vocational rehabilitation services, with services to be provided by that agency transmitted to the transitional program specialist. Individualized education programs and individualized written rehabilitation programs (IWRP's) should be developed jointly by rehabilitation and special educators, the parents, students, and administrators.

Handicapped students currently have and will continue to have a broader range of work preparation alternatives available to them. As these alternatives continue to emerge, educators from all disciplines have a responsibility to understand the contributions each can make to the lives of handicapped youths. Only by collaborating and working together can these youngsters be assisted in achieving their optimal potentials for work and adult life.

Education and human services personnel can fully achieve this goal only if they keep foremost in their minds that the various systems exist solely to assist individuals in need. Finally, it must also be remem-

bered that human services personnel and handicapped individuals themselves must be advocates for equity. In this regard, we have just begun.

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Appendix A

The Language of Work Preparation

assessment: The multitrait-multimethod process of gathering data about an individual and fashioning that data into an interpretable form which can be used in decision making (Anderson, Ball, & Murphy, 1976). Vocational assessments may be formal or informal and may be used to assist students in program selection, for career exploration purposes, and/or to determine student learning needs and progress.

career education: The totality of experiences, which are designed to be free of bias and stereotyping (including bias and stereotyping on account of race, sex, age, economic status, or handicap), through which a person learns about and prepares to engage in work as part of a way of living and through which that person relates work values to other life roles and choices, such as family life. (Public Law 94-207)

handicapped individual (CETA): Any person who has a physical or mental disability which constitutes a substantial barrier to employment and can benefit from CETA services provided, as determined by the prime sponsor. (*Federal Register*, April 3, 1979)

handicapped individual (vocational rehabilitation): Any person who (a) has a physical or mental impairment which substantially limits one or more of such person's major life activities, (b) has a record of such an impairment, or (c) is regarded as having such an impairment. (*Federal Register*, May 4, 1977)

handicapped students (special education): Those children (appropriately) evaluated as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities, who because of those impairments need special education and related services. (Public Law 94-142)

handicapped student (vocational education): Persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, or other health impaired, or persons with specific learning disabilities who by reason thereof require special education and related services, and who because of their handicapping condition cannot succeed in the regular

vocational education program without special education assistance or who require a modified vocational education program. (*Federal Register*, October 3, 1977)

individualized education program (IEP): A written statement for each handicapped child developed in any meeting by (a) a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, (b) the teacher, (c) the parents or guardian of such child, and (d) whenever appropriate, such child. The statement shall include: (a) a statement of the present levels of educational performance of such child; (b) a statement of annual goals, including short term instructional objectives; (c) a statement of the specific educational services to be provided to such child, and the extent to which such child will be able to participate in regular educational programs; (d) the projected date for initiation and anticipated duration of such services; and (e) appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved. (Public Law 94-142)

least restrictive environment: An educational placement that is determined individually for each exceptional child, the placement being as close as possible to the regular class setting. This concept recognizes that handicapped children have a wide range of educational needs for which a variety of placements are required. (Davis & Ward, 1978, p. xi)

related services: Transportation and such developmental, corrective, and other supportive services as may be required to help a handicapped child benefit from special education. Such services may include, but are not limited to, speech pathology and audiology, psychological identification and assessment of disabilities in children, counseling services, and medical services for diagnostic or evaluation purposes. The term also includes school health services, social work services in schools, and parent counseling and training. (Davis & Ward, 1978, p. xii)

sheltered workshop or workshop: An organization or institution conducted not for profit but for the purpose

of carrying out a recognized program of rehabilitation for handicapped workers and/or providing such individuals with remunerative employment or other occupationally rehabilitating activity of an educational or therapeutic nature. (Davis & Ward, 1978, p. xii)

special education: Specially designed instruction, at no cost to the parent, to meet the unique needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction, and instruction in hospitals and institutions. "Special education" includes speech pathology or any other related service if that service consists of specially designed instruction, at no cost to the parents, to meet the unique needs of a handicapped child, and is considered "special education" rather than a "related service" under state standards. Vocational education, if it consists of specially designed instruction, at no cost to the parents, to meet the unique needs of a handicapped child, is also considered to be "special education." (Davis & Ward, 1978, p. xii)

special education work experience or work-study programs: Students are employed part time during school hours. School instruction is not tied daily and directly to the student's job needs and does not require a specified career objective. In school, instruction tends to focus on general employability skills rather than specific job training.

supportive services: A term used in vocational education to refer to services similar to those provided by special education under related services. (Davis & Ward, 1978, p. xiii)

vocational cooperative education programs: A program of instruction which has as its purpose development of occupational competence, using job participation as a source of learning. The school selects job sites and supervises the training. Careful correlation is made between that which is learned in school and the activities encountered in work. Instruction is sequenced, delineated in a training plan, and occurs concurrently in school and on the job. (Mason & Haines, 1972)

vocational education: Organized educational programs that are directly related to the preparation of individuals for paid or unpaid employment or for additional preparation for a career requiring other than a baccalaureate or advanced degree. The nine vocational areas identified by the US Office of Education are agriculture, distributive education, health occupations education, occupational home economics, consumer and homemaking education, office occupations, technical education, trade and industrial occupations, and industrial arts. (Davis & Ward, 1978, p. xiii)

vocational work experience programs: A scheme in which the student who is enrolled in a vocational curriculum is also employed part time during school hours. The job is usually not related to the vocational curriculum, but the income and motivation are believed to enable the student to continue and complete the vocational studies. (Mason & Haines, 1972, p. 12)

work: Conscious effort. . . aimed at producing benefits for oneself and/or others. This definition, which includes both paid and unpaid work, speaks to the survival need of society for productivity. It also speaks to the personal need of all individuals to find meaning in their lives through their accomplishments. (Hoyt, 1975, p. 5)

work adjustment training: Provides training in work habits and skills generic to every type of work but not necessarily part of the specific work performed (e.g., punctuality, dependability).

work activities center or activities center: A workshop or a physically separated department of a workshop having an identifiable program and separate supervision and records, planned and designed exclusively to provide therapeutic activities for handicapped workers whose physical or mental impairment is so severe as to make their productive capacity inconsequential. (Davis & Ward, 1978, p. xiii)

work exploration: Work site experiences generally ranging from one day to one semester in duration in which the student performs tasks associated with a given job. The student may or may not be paid for the work. Little school supervision is involved.

work observation: Very short term work site experiences in which the "student observes work but does not perform tasks except to understand them." This type of experience is unpaid and is frequently part of career exploration activities. (Mason & Haines, 1972, p. 9)

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Appendix B

CETA Youth Titles

Job Corps: Designed for out of school youths most in need ages 16 through 21. Job corps is intended to provide intensive and extensive services directed toward lifelong gains in employment and training. These services are provided in residential and day centers.

Summer Youth Employment Program (SYEP): Formerly referred to as Summer Program for Economically Disadvantaged Youth (SPEDY), this program is designed primarily for economically disadvantaged youths ages 14 through 21. This program provides part time summer employment, vocational exploration, and other services. Employment is obtained in public and private nonprofit agencies such as schools, hospitals, and libraries.

Youth Incentive Entitlement Projects (YIEPP): An experimental program designed for economically disadvantaged 16 to 19 year old youths in selected geographic areas. Seventeen sites from across the country were selected in January 1978 to serve as demonstration sites. Youths participating in this program are guaranteed a job if they agree to attend school. Each participant must maintain satisfactory work and school performance and attendance standards to remain in the program.

Youth Community Conservation and Improvement Projects (YCCIP): Designed for unemployed, out of school 16 to 19 year olds with the most severe problems in finding employment. These programs are intended to assist youths develop their vocational potential through supervised work on community planned projects. Supervision is provided by skilled workers.

Youth Employment and Training Programs (YETP): Intended for youths ages 14 through 21 who have the most severe problems entering the labor market. At least 22% of the funds available under this program must be spent on in-school youths. Prime sponsors and local education agencies must cooperatively plan for the use of these funds. A written agreement must be developed by these agencies. This agreement may also cover other in-school programs.

Young Adult Conservation Corps (YACC): Designed for unemployed, out of school youths ages 16 through 23. Its purpose is to give youths work experience on conservation and other projects on federal and non-federal lands and waters. This program is operated cooperatively between the Department of Labor and the Departments of Agriculture and the Interior.

Appendix C

STUDENT ANALYSIS SUMMARY

Student _____

Occupational area

Evaluator _____

Date _____

Student factors	Rating		As indicated by (evidence)
	High	Low	
Previous experience with work			
Interest			
Occupationally related current level of academic performance			
Occupationally related current level of psychomotor performance			
Occupationally/program related current level of social/behavioral performance			
Attitudes about self			
Parental attitudes about occupational area			

Student factors	Description	Measures
Physical, mental, emotional tolerances		
Learning style and mode		

SITUATIONAL ANALYSIS SUMMARY

Student _____

Occupational area

Evaluator _____

Date _____

Program setting

Situational factors	Ratings		Verification
Teacher attitude	positive	negative	
Physical location	accessible	inaccessible	
Curriculum flexibility	flexible	inflexible	
Instructional materials	varied	limited	
Environment	adaptable	fixed	
Equipment	adaptable	fixed	
Instructional methods	flexible	fixed	
Behavior management	flexible	fixed	
Peer performance	high	low	
Peer attitudes	accepting	rejecting	
Evaluation methods	flexible	fixed	

SUPPORT SERVICES SUMMARY

Student _____

Occupational area

Evaluator _____

Date _____

Program setting

Support service categories

Description

Service providers

Instructional

Equipment

Personnel

Transportation

Medical

Related information

Assessment outcomes:

Comments:

Recommendations

Placement:

Modifications/adaptations:

IEP team recipients: _____

Transmittal date: _____

Appendix D

The table on the following page represents a revision by the national interagency team of one initially developed by a joint CSAVR-NASDSE Task Force. Under federal laws and regulations, all of the activities listed can generally be provided by special education, vocational rehabilitation, and vocational education, with the exception of those activities marked with an X. Activities marked with an X are excluded under most circumstances or lack authorization in the statutory authority for that program.

It is expected that each of the listed activities will be addressed in the development of collaborative service agreements within each state.

TABLE OF ACTIVITIES

Activities	Special education	Vocational rehabilitation	Vocational education
Find activities:			
1. Public awareness			
2. Professional awareness			
3. Mass screening		X	X
4. Individual screening			
Cross referral:			
Assessment activities:			
1. Psychological			
2. Social/home/peer			
3. Educational			
4. Speech and language			X
5. General medical examination			X
6. Specific medical examination			X
7. Vocational interest/aptitude			
8. Work evaluation*			X
Program planning:			
Services:			
1. Occupational skills instruction			
2. Academic/vocational supporting instructions			
3. Counseling—academic adjustment			
4. Counseling—personal adjustment			
5. Counseling—vocational adjustment			
6. Medical services other than diagnostic	X		X
7. Mental therapy			X
8. Aids/devices—individually owned	X		X
Aids/devices for learning and job training site accommodations			
9. Interpreter and reader services for personal use or home study	X		X
Interpreter and reader services for learning and job training site accommodations			
10. Other related services (i.e., OT, PT, speech correction)			X
11. Job development			
12. Job placement			
13. Postemployment services	X		
14. Occupational services (tools, equipment, etc.) — individually owned	X		X
15. Family support services			
16. Transportation			
17. Subsistence while in training	X		X
Architectural barrier removal:			
1. Individual accommodations	X		X
2. Home accommodations	X		X
3. Learning site accommodations			
4. Job training site accommodations			

Note. Work study, work experience, on-the-job training, et cetera have not been included in this listing because of the numerous and varying definitions and conditions applicable to these services under the programs. They will be addressed in subsequent materials.

* Usually provided in private rehabilitation facilities to determine work potential or employability.